



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/759,985 Confirmation No.: To be assigned
Applicant: Schinazi *et al.*
Filed: January 16, 2004
TC/AU.: To be assigned
Examiner: To be assigned

Docket No.: 18085.105327 EMU 133 CON 5
Customer No.: 20786
Title: (5-Carboxamido or 5-Fluoro)-(2',3'-Unsaturated or 3'-Modified)-Pyrimidine Nucleosides

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

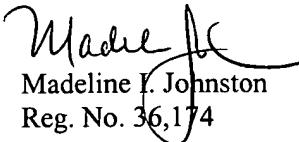
Transmittal of Information Disclosure Statement

Sir:

The citation of information on the attached Form PTO-1449 is made pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98. A copy of each of references BW, DJ, HF and JK is enclosed; copies of the remaining references were cited in the following parent applications: U.S.S.N. 10/146,779, which issued as 6,680,303 on January 20, 2004; 09/677,161, which issued as 6,391,859 on May 21, 2002; 09/310,323, which issued as 6,232,300 on May 15, 2001; 09/001,084, which issued as 5,905,070 on May 18, 1999; and 08/379,276, which issued as 5,703,058 on December 30, 1997. The citation of this information does not constitute an admission of priority or that any cited item is available as a reference, or a waiver of any right the applicant may have under applicable statutes, Rules of Practice in patent cases, or otherwise.

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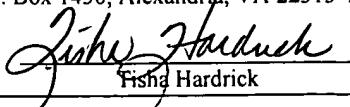
Respectfully submitted,


Madeline I. Johnston
Reg. No. 36,174

Date: April 30, 2004
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191 Peachtree Street, N.E., Atlanta, GA 30303
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet **1** of **14** Attorney Docket Number **18085.105327 EMU 133 CON 5**

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U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pgs, Clms, Lns, Where Relevant Passages/Relevant Figs Appear
		Number	Kind Code (if known)			
AA	3,116,282	A		Hunter	12-31-1963	
AB	3,553,192	A		Gauri	01-05-1971	
AC	3,817,982	A		Verheyden et al.	06-18-1974	
AD	4,000,137	A		Dvonch et al.	12-28-1976	
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AJ	4,916,122	A		Chu et al.	02-13-1999	
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AQ	5,059,690	A		Zahler et al.	09-10-1991	
AR	5,071,983	A		Koszalka et al.	10-22-1991	
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AAB	5,241,069	A		Vince et al.	08-31-1993	
AAC	5,246,924	A		Fox et al.	09-21-1993	
AAD	5,248,776	A		Chu et al.	09-28-1993	
AAE	5,270,315	A		Belleau et al.	12-14-1993	

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Submitted for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	10/759,985
Sheet	2	of	14	Filing Date	January 16, 2004
				First Named Inventor	Schinazi <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
				Attorney Docket Number	18085.105237 EMU 133 CON 5

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Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		
BA	5,276,151	A		Liotta <i>et al.</i>	01-04-1994
BB	5,329,008	A		Partridge <i>et al.</i>	07-12-1994
BC	5,409,906	A		Datema <i>et al.</i>	04-25-1995
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BI	5,521,161	A		Malley <i>et al.</i>	05-28-1996
BJ	5,561,120	A		Lin <i>et al.</i>	10-01-1996
BK	5,567,688	A		Chu <i>et al.</i>	10-22-1996
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BM	5,627,160	A		Lin <i>et al.</i>	05-06-1997
BN	5,631,239	A		Lin <i>et al.</i>	05-20-1997
BO	5,703,058	A		Schinazi <i>et al.</i>	12-30-1997
BP	5,756,478	A		Cheng <i>et al.</i>	05-26-1998
BQ	5,869,461	A		Cheng <i>et al.</i>	02-09-1999
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BS	6,232,300	B1		Schinazi <i>et al.</i>	05-15-2001
BT	6,348,587	B1		Schinazi <i>et al.</i>	02-19-2002
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BV	2002/0198173	A1		Schinazi <i>et al.</i>	12-26-2002
BW	6,680,303	B2		Schinazi <i>et al.</i>	01-20-2004

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				Kind Code ² (if known)	
BX	DE	1 620 047		Merck	03-17-1970
BY	EP	0 206 497	B1	Wellcome Foundation LTD	07-20-1994
BZ	EP	0 217 580	A2	Wellcome Foundation LTD	04-08-1987
BAA	EP	0 285 884	A2	Bristol-Myers Company	10-12-1988
BAB	EP	0 337 713	B1	BioChem Pharma	10-18-1995
BAC	EP	0 352 248	A1	Medivir Aktieboiag	01-24-1990

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INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

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				Application Number	10/759,985
				Filing Date	January 16, 2004
				First Named Inventor	Schinazi <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	3	of	14	Attorney Docket Number	18085.105237 EMU 133 CON 5

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		Office ³	Number	Kind Code ² (if known)				
CA	EP	0 375 329	A2		Wellcome Foundation LTD	06-27-1990		
CB	EP	0 382 526	A2		IAF BioChem Int'l	08-16-1990		
CC	EP	0 409 227	A2		Akad Wiss DDR	01-23-1991		
CD	EP	0 433 898	A2		Abbott Laboratories	06-26-1991		
CE	EP	0 494 119	A1		IAF BioChem Int'l	07-08-1992		
CF	EP	0 515 144	A1		BioChem Pharma	11-25-1992		
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CH	EP	0 515 157	B1		BioChem Pharma	09-03-1997		
CI	EP	0 519 464	B1		Ajinimoto	12-23-1992		
CJ	EP	0 526 253	A1		BioChem Pharma	02-03-1993		
CK	JP	7-109221			Wellcome Foundation Ltd	04-25-1995		
CL	NL	8,901,258			Stichting Rega	12-17-1990		y
CM	WO	88/07532	A1		Holmes, et al.	10-06-1988		
CN	WO	88/08001	A1		Aktiebolaget Astra	10-20-1988		
CO	WO	90/12023	A1		Walker, et al.	10-18-1990		
CP	WO	91/06554	A1		Nycomed	05-16-1991		
CQ	WO	91/09124	A1		Biotech AU PTY. LTD	06-27-1991		
CR	WO	91/11186	A1		Emory University	08-08-1991		
CS	WO	91/16333	A1		Southern Res Inst	10-31-1991		
CT	WO	91/17159	A1		IAF Biochem Int'l, Inc.	11-14-1991		
CU	WO	91/19727	A1		Sloan Kettering Inst	12-26-1991		
CV	WO	92/06102	A1		Medivir AB	04-16-1992		
CW	WO	92/08727	A1		Consiglio Naz. Delle Ricerche	05-29-1992		
CX	WO	92/10496	A1		UGA Research Found.	06-25-1992		
CY	WO	92/10497	A1		UGA Res. Found.; Emory U.	06-25-1992		
CZ	WO	92/14729	A1		Emory University	09-03-1992		
CAA	WO	92/14743	A2		Emory University	09-03-1992		
CAB	WO	92/15308	A1		Wellcome Foundation LTD	09-17-1992		
CAC	WO	92/18517	A1		Yale University, et al.	10-29-1992		
CAD	WO	92/21676	A1		Glaxo Group Limited	12-10-1992		
CAE	WO	93/23021	A2		Wellcome Foundation LTD	11-25-1993		
CAF	WO	94/09793	A1		Emory University	05-11-1994		
CAG	WO	94/14456	A1		Biochem Pharma	07-07-1994		

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				First Named Inventor	Schinazi <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
				Attorney Docket Number	18085.105237 EMU 133 CON 5

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FOREIGN PATENT DOCUMENTS

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		Office ³	Number	Kind Code ² (if known)				
DA	WO	94/14802	A1		Biochem Pharma	07-07-1994		
DB	WO	94/14831	A1		University of Alberta	07-07-1994		
DC	WO	94/27590	A1		Gov't of United States	12-08-1994		
DD	WO	94/27616	A1		Yale University	12-08-1994		
DE	WO	95/07086	A1		Emory University	03-16-1995		
DF	WO	95/07287	A1		Ctr. Nat. de la Recherche Sci.	03-16-1995		
DG	WO	95/18137	A1		Genta Incorporated	07-06-1995		
DH	WO	95/20595	A1		UGA Research Found.	08-03-1995		
DI	WO	95/21183	A1		Acid (Canada) Inc.	08-10-1995		
DJ	WO	96/22778	A1		Emory University	08-01-1996		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	DK	Database WPI, Week 8748, Derwent Publications Ltd., London, GB; AN 87-338135 for JP 62-242624 A to Asahi Glass 10-23-1987; [98-338135], Abstract.	
	DL	EPO Search Report for SN. 96 902772, July 26, 1999.	
	DM	ABOBO <i>et al.</i> , "Pharmacokinetics of 2', 3'-Dideoxy-5-fluoro-3'-thiacytidine in Rats," <i>J. Pharmaceutical Sciences</i> , 83(1), 96-99 (January 1994).	
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	EA	BALZARINI <i>et al.</i> , "5-Chloro-substituted Derivatives of 2', 3'-Didehydro-2', 3'-dideoxyuridine, 3-Fluoro-2', 3'-dideoxyuridine and 3'-Azido-2', 3'-dideoxyuridine as Anti-HIV Agents," <i>Biochem. Pharmacology</i> , 38(6), 869-874 (1989).	
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	EE	BELLEAU, B., <i>et al.</i> , <i>Chem. Abst.</i> 118(17):169533s (1993).	
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	EK	CHANG, C.-N., <i>et al.</i> , "Biochemical Pharmacology of (+) and (-)-2',3'-Dideoxy-3'-Thiacytidine as Anti-Hepatitis B Virus Agents", <i>J. Biol. Chem.</i> , 267(3):22414-22420 (1992).	
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	EM	CHANG, Chungming, <i>et al.</i> , "Production of Hepatitis B Virus In Vitro by Transient Expression of Cloned HBV DNA in a Hepatoma Cell Line," <i>EMBO Journal</i> , 6(3):675-680 (1987).	
	EN	CHEN, Chin-Ho, <i>et al.</i> , "Delayed Cytotoxicity and Selective Loss of Mitochondrial DNA in Cells Treated with the Anti-Human Immunodeficiency Virus Compound 2',3'-Dideoxycytidine," <i>J. Biological Chemistry</i> , 264(20):11934-11937 (1989).	

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Application Number	10/759,985
Filing Date	January 16, 2004
First Named Inventor	Schinazi <i>et al.</i>
Group Art Unit	Unassigned
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	10/759,985
Sheet	11	of	14	Filing Date	January 16, 2004
				First Named Inventor	Schinazi <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
				Attorney Docket Number	18085.105237 EMU 133 CON 5

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
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	KA	PAI <i>et al.</i> , "Inhibition of Hepatitis B Virus by a Novel L-Nucleoside, 2'-Fluoro-5-Methyl-.beta.-L-Arabinofuranosyl Uracil," <i>Antimicrob. Agents and Chemother.</i> , 40(2):380-386 (February 1996).
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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
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	LA	SCHINAZI, R.F., <i>et al.</i> , "Activities of the Four Optical Isomers of 2',3'-Dideoxy-3'-Thiacytidine (BCH-189) against Human Immunodeficiency Virus Type 1 in Human Lymphocytes," <i>Antimicrobial Agents and Chemotherapy</i> , 36(3):672-676 (March 1992).	T 6
	LB	SCHINAZI, R.F., <i>et al.</i> , "Insights into HIV Chemotherapy," <i>AIDS Research and Human Retroviruses</i> 8(6):963-990 (1992).	
	LC	SCHINAZI, R.F., <i>et al.</i> , "Pharmacokinetics and Metabolism of Racemic 2',3'-Dideoxy-5-Fluoro-3'-Thiacytidine in Rhesus Monkeys," <i>Antimicrobial Agents and Chemotherapy</i> , 36(11):2432-2438 (November 1992).	
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Examiner Name	Unassigned

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	MA	STORER, R., <i>et al.</i> , "The Resolution and Absolute Stereochemistry of the Enantiomeris of cis-1-[2-(Hydromethyl)-1,3-Oxathiolan-5-yl]cytosine (BCH189): Equipotent Anti-HIV Agents," <i>Nucleosides & Nucleotides</i> , 12(2):225-236 (1993).	
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	ME	TISDALE <i>et al.</i> , "Rapid In Vitro Selection of Human Immunodeficiency Virus Type 1 Resistant to 3'-Thiacytidine Inhibitors Due to a Mutation in the YMDD Region of Reverse Transcriptase," <i>Proc. Natl. Acad. Sci. USA</i> , 90:5653-5656 (June 1993).	
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	MK	WILSON <i>et al.</i> , "The 5'-Triphosphates of the (1) and (+) Enantiomers of cis-5-Fluoro-1-[2-(Hydroxymethyl)-1,3-Oxathiolane-5-yl]Cytosine Equally Inhibit Human Immunodeficiency Virus Type 1 Reverse Transcriptase," <i>Antimicrob. Agents and Chemother.</i> , 37(8):1720-1722 (August 1993).	
	ML	WILSON, L.J., <i>et al.</i> , "A General Method for Controlling Glycosylation Stereochemistry in the Synthesis of 2'-Deoxyribose Nucleosides," <i>Tetrahedron Lett.</i> , 31(13):1815-1818 (1990).	
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	NA	YOKOTA <i>et al.</i> , "Comparative Activities of Several Nucleoside Analogs Against Duck Hepatitis B Virus In Vitro," <i>Antimicrobial Agents and Chemotherapy</i> , 34(7):1326-1330 (July 1990).	
	NB	ZHU, Zhou, <i>et al.</i> , "Cellular Metabolism of 3'-Azido-2',3'-Dideoxyuridine with Formation of 5'-O-Diphosphhexase Derivatives by Previously Unrecognized Metabolic Pathways of 2'-Deoxyuridine Analogs," <i>Molecular Pharmacology</i> , 38:929-938 (1990).	

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